THE DELAWARE AND HUDSON RAILROAD BULLETIN

FEBRUARY 1, 1938

WATERFALL
FORT ANN, N.Y.

Washington

WASHINGTON stands among the greatest men of human history, and those in the same rank with him are very few. Whether measured by what he did, or what he was, or by the effect of his work upon the history of mankind, in every aspect he is entitled to the place he holds among the greatest of his race.—HENRY CABOT LODGE.

Kenwood
Yard
albany

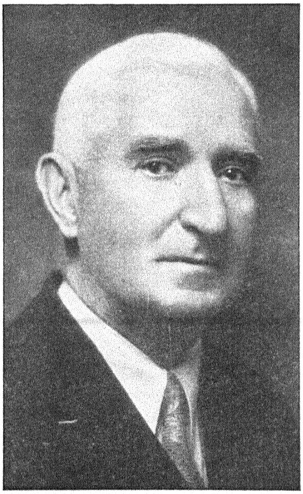
7/18/15

The
DELAWARE AND HUDSON RAILROAD
CORPORATION
BULLETIN

An Expert Tobacconist

Forsook His Trade for Railroading Career with Delaware and Hudson

LATE in the summer of 1883, AMBROSE LAMPHIER, a journeyman tobacconist, arrived in Albany from Rochester to take a position in a local factory, only to learn that the plant was temporarily closed while the machinery was being overhauled. Faced with the prospect of several weeks' idleness, he was about to go back home when he met a young Delaware and Hudson freight house employe who told him that the railroad needed men. At the suggestion of this chance acquaintance, MR. LAMPHIER applied to Agent and General Yard Master Paul Wadsworth for a position, expecting, if accepted, to work in the freight house. Instead he was hired as extra brakeman and went to work on a switch engine in Kenwood Yard, October 3, 1883, thus beginning a 52-year railroading career.



AMBROSE LAMPHIER

MR. LAMPHIER'S grandfather, a native of Thurles, County Tipperary, Ireland, and a veteran of the Rebellion of 1798, brought his wife and 12 children to America in 1836, settling in Rochester, N. Y., where he became a mason and building contractor. MR. LAMPHIER'S father, after learning the tobacconist trade, was made foreman of a cigar- chewing- and smoking-tobacco manufacturing plant in Elmira, N. Y., where the family was living when AMBROSE was born September 14, 1865. Later the Lamphier family returned to Rochester where, after graduating from school, AMBROSE learned the tobacconist trade in his father's shop.

At that time most large cities had one or two cigar and tobacco factories, and, as the tobacconist trade required a high degree of skill, it was usually handed down from father to son for generations. Tobacco plants, grown in various states and foreign countries during the summer months, were cut and hung in sheds until the "January thaw." Then, by absorbing moisture from the air, the previously very brittle leaves became pliable and were stripped from the stalks, sorted, and packed in cases for shipment to tobacco warehouses, principally in New York City. For the balance of the year the tobacco was permitted to "sweat" in the cases and, to attain particular qualities and flavors some was "re-sweated," until the early part of the following year. Salesmen then took samples of the contents of each case to tobacconists in various cities who bought a year's supply. Chewing and smoking tobacco leaves were pressed into a cake or "cheese" which was then cut into shreds of the desired coarseness by the keen blades of a fan-shaped machine turning 1,200 revolutions a minute. First quality cigars were rolled by expert tobacconists using Havana fillers wrapped in American-grown leaves; cheaper grades were pressed to shape in molds. Because tobacco dust in factories caused irritations in some men's respiratory organs, MR. LAMPHIER was advised to give up his trade in favor of outdoor work.

MR. LAMPHIER recalls a number of drastic changes in Kenwood Yard and vicinity since he went to work there 54 years ago. The Yard itself consisted of but one main and three yard tracks, with an office at Church Street and Fourth Avenue. A pleasure boat was then operated on a regular schedule from the wharf near the Green Street Crossing to the Abbey near Glenmont. The creek which used to parallel the tracks from Green Street south to the lower end of the yard was several hundred feet wide and from 8 to 19 feet deep, permitting navigation by large boats to a point below the present site of "KN" Tower. Equally interesting is the fact that the West Shore main tracks were carried over the marshes south of the yard on a wooden trestle perhaps a quarter of a mile long. Although the yard was small, two yard engines were kept busy day and night switching the hundreds of cars coming from and destined to the Susquehanna Division. There were three regularly assigned crews running south to Delanson, each making two round trips for one day's pay.

As Albany was then an important coal and grain distributing center, MR. LAMPHIER'S crew placed hundreds of cars of coal on the trestle at Kenwood for dumping into canal boats, most of the coal moving south to New York and other points along the Hudson River. Carloads of grain and flour which could not be accommodated at Kenwood were held in the Meadowdale Yard which would hold about 400 of the small cars of that period.

After one and a half years of yard and road work as extra brakeman, MR. LAMPHIER was given a regular assignment with Joseph Connell on bob-tailed switcher No. 76, named the *Anthracite*, which could handle only 24 of the 6-, 8-, and 10-ton cars then in use. To prevent damage to the drawheads while cars were being switched or moved in trains, each had two semi-circular, cast iron bumpers or "deadwoods" varying in size from 8 by 10 to 8 by 14 inches on each end. In coupling or uncoupling the links and pins the brakemen had to reach over or under these bumpers to insert or pull out the pin. The only serious accident MR. LAMPHIER ever had occurred one morning when his hand was caught between the bumpers of two cars, crushing several fingers.

In 1886, after three years' railroading experience, MR. LAMPHIER was promoted to yard conductor by Mr. Wadsworth. There were no examinations for promotion then; a brakeman simply had to demonstrate his ability to handle a crew, thereby gaining consideration for promotion as vacancies

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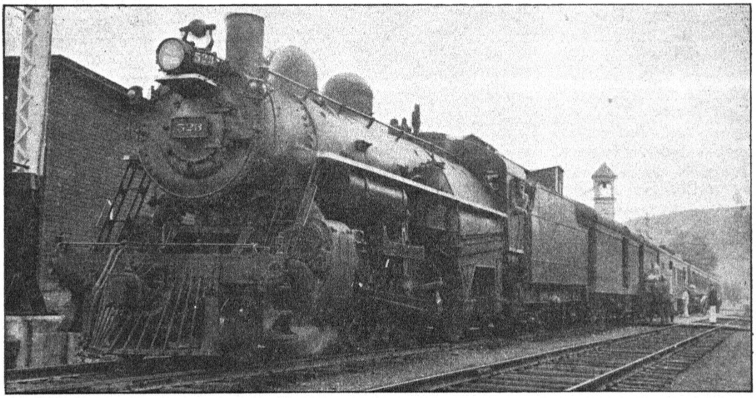


For Ten Years Mr. Lamphier Was Baggageman on Train 309, Shown Above at Bainbridge, N. Y.

A.D.

IN MEMORIAM

1937

> *And, departing, leave behind us,*
> *Footprints on the sands of time.*
>
> — HENRY WADSWORTH LONGFELLOW

THE sands of time bear the footprints of 158 fellow employes who passed from our midst in 1937. Each, in the performance of his duties, made a distinct and necessary contribution to the service of mankind. May we who remain faithfully discharge the trust their departure places in our hands.

J. T. Loree
VICE-PRESIDENT AND GENERAL MANAGER

The Roll

NAME	OCCUPATION	LOCATION	ENTERED SERVICE	DIED
Adams, Frederick H.	Crossing Watchman	North Albany	July 25, 1928	May 24
Alger, Alonzo (P)	Loco. Inspector	Oneonta	Feb. 23, 1917	June 30
Allen, James E.	Shop Laborer	Colonie	July 9, 1917	Oct. 14
Anthony, Frank D. (P)	Gen'l. Fire Inspr.	Albany	Mar. 1, 1906	Mar. 18
Apple, John M.	Laborer	Colonie	Nov. 16, 1922	May 24
Baird, William J.	Trainman	Oneonta	Aug. 26, 1913	Nov. 8
Bellegarde, Louis J. (P)	Asst. Painter Fore.	Green Island	Dec. 1, 1911	Dec. 26
Benedict, James H. (P)	Gen'l. P. W. Supvr.	Albany	Sept. 1, 1906	June 13
Blake, Robert E.	Fireman	Oneonta	Dec. 17, 1916	Feb. 27
Boyer, Felix (P)	Blacksmith	South Albany	Feb. 1, 1893	Nov. 13
Breen, Osborne E.	Yardmaster	Port Henry	July 11, 1910	Oct. 23
Breen, Timothy (P)	Crossing Watchman	Glens Falls	Dec. 1, 1918	Apr. 9
Brennan, Hugh (P)	Conductor	Champ. Division	Oct. 1, 1873	Dec. 31
Brennan, Michael J. (P)	Carpenter Helper	Carbondale	Aug. 1, 1892	Apr. 4
Brooks, James O. (P)	Crossing Watchman	Ballston	Apr. 1, 1924	July 29
Buckman, James (P)	Trainman	Sara. Division	Oct. 15, 1885	Sept. 2
Cammaro, Vengenzo	Trackman	Saratoga	Feb. 1, 1912	Mar. 16
Canine, Arthur	Sand Drier	Oneonta	Apr. 8, 1924	May 7
Carr, John C. (P)	Trainman	Susq. Division	Dec. 17, 1888	Nov. 9
Caruso, Frank	Crossing Watchman	Granville	Aug. 27, 1910	Mar. 1
Case, Charles (P)	Teleg.-Towerman	Delanson	Apr. 1, 1895	Mar. 6
Caserio, Marchino (P)	Crossing Watchman	Sidney	Apr. 1, 1885	Sept. 29
Casey, John (P)	Stationary Engineer	Oneonta	Mar. 1, 1916	Oct. 4
Clapper, Enos (P)	Crossing Watchman	Oneonta	May 1, 1917	Apr. 5

The Roll

(Continued)

NAME	OCCUPATION	LOCATION	ENTERED SERVICE	DIED
Cody, George M.	Janitor	Colonie	Aug. 18, 1924	Aug. 24
Colvin, Seth (P)	Crossing Watchman	Hudson	Apr. 1, 1874	Feb. 5
Coons, John (P)	Crossing Watchman	Ballston	Nov. 1, 1922	Oct. 31
Crockett, Charles H. (P)	Clerk	Schenectady	Oct. 28, 1883	Feb. 25
Crounse, Elmer J. (P)	Towerman	Watervliet	May 1, 1884	May 31
Curran, Thomas	Trainman	Carbondale	Jan. 27, 1906	Sept. 25
Detrick, George	Hostler	Mechanicville	Nov. 5, 1918	Sept. 24
Dimock, Charles E. (P)	Conductor	Carbondale	Oct. 1, 1892	Jan. 12
Donohue, Michael J. (P)	Conductor	Colonie	Aug. 1, 1890	Feb. 10
Ernst, Joseph F. (P)	Sergeant	Saratoga	June 1, 1906	Mar. 10
Fairchild, Edgar (P)	Fireman	Colonie	Sept. 1, 1890	Apr. 14
Farone, John (P)	Crossing Watchman	Mechanicville	May 1, 1887	Aug. 20
Farrell, John J.	Foreman	Carbondale	May 10, 1922	June 2
Finnerty, Thomas (P)	Machinist Helper	Carbondale	July 25, 1913	Nov. 29
Flanagan, Daniel (P)	Crossing Watchman	Albany	July 1, 1922	Nov. 12
Flanders, Tyrus (P)	Trackman	Corinth	Jan. 1, 1917	May 16
Foster, William	Engineer	Carbondale	May 23, 1895	June 23
Frooms, Thomas H.	Machinist	Oneonta	Feb. 13, 1924	Nov. 16
Gage, Oscar	Stationary Engineer	Oneonta	Aug. 21, 1923	Nov. 18
Gallenschutz, Anthony	Foreman	Colonie	July 9, 1923	Apr. 14
Gallico, Edward (P)	Ticket Agent	Green Island	Mar. 1, 1876	Mar. 27
Gilio, Lawrence	Crossing Watchman	Mayfield	Nov. 14, 1928	July 12
Goodrich, Harry H.	Sergeant	System	July 10, 1921	Sept. 28
Gossweiler, Charles (P)	Crossing Watchman	Bainbridge	Feb. 1, 1893	July 14
Greco, Joseph (P)	Foreman	Fort Ann	Aug. 1, 1888	May 30
Grozzo, Michael	Sealer	Mechanicville	July 2, 1902	Feb. 23
Hagadorn, Manly J. (P)	Storeroom Man	Albany	Jan. 1, 1884	Apr. 25
Haggerty, James (P)	Crossing Watchman	Dickson	Aug. 1, 1924	June 10
Hall, Charles H. (P)	Crossing Watchman	Ballston	Aug. 1, 1908	July 17
Hall, Edward W. (P)	Plan. Mill Layer-out	Oneonta	Jan. 1, 1923	Apr. 25
Hall, Sharon (P)	Foreman	Colonie	Sept. 25, 1888	Jan. 4
Hampton, Reuel M.	Conductor	Carbondale	Apr. 2, 1888	Aug. 21
Hanley, James J.	Trainman	Oneonta	Nov. 10, 1903	Jan. 17
Harp, Charles R. (P)	Conductor	Oneonta	Oct. 25, 1883	Oct. 9
Harrigan, William J.	Rock Watchman	Port Kent	Apr. 20, 1909	Apr. 26
Hayes, James F.	Clerk	Albany	Oct. 13, 1909	Sept. 25
Henicke, Ernest	Trainman	Mechanicville	July 6, 1916	Jan. 5
Hennessey, Felix J. (P)	Master Painter	Colonie	June 1, 1906	Apr. 4
Howe, Rutherford B.	Crossing Watchman	Poultney	July 1, 1918	Sept. 28
Howell, Ralph	Crossing Watchman	Dickson	Apr. 6, 1925	Dec. 11
Hudson, Charles M.	Conductor	Carbondale	July 13, 1894	May 14
Hufford, Harry (P)	Engineer	Oneonta	May 1, 1882	July 20
Hyney, Ward	Machinist Helper	Oneonta	Dec. 18, 1922	Mar. 4
Jacques, William F.	Engineer	Colonie	July 16, 1904	July 9
Johann, Nicholas (P)	Laborer	Colonie	Oct. 23, 1922	Jan. 5
Johnson, Cyrus A. (P)	Scale Inspector	Albany	Feb. 1, 1892	Apr. 23
Johnson, Walter E.	Engineer	Saratoga	Jan. 19, 1884	Sept. 5
Jones, Elbert R. (P)	Telegrapher	Albany	July 1, 1888	Oct. 7
Jones, John J. (P)	Trainman	Sara. Division	Mar. 1, 1879	Dec. 19
Judge, John S.	Machinist	Carbondale	Aug. 19, 1893	Sept. 18
Kearney, John J. (P)	Trav. Car Tracer	Carbondale	Mar. 1, 1886	Feb. 15
Kearney, Thomas	Crossing Watchman	Green Island	Nov. 15, 1904	Mar. 22

The Roll

(Continued)

NAME	OCCUPATION	LOCATION	ENTERED SERVICE	DIED
Keble, William (P)	Laborer	Oneonta	Feb. 20, 1924	Dec. 17
Keiper, Wilson	Fire Cleaner	Wilkes-Barre	Nov. 5, 1923	Oct. 29
Kermode, Edward J. (P)	Hospital Steward	Colonie	Jan. 1, 1913	Jan. 26
Korka, James	Laborer	Colonie	July 20, 1926	Mar. 8
La Fave, Leno E.	Trainman	Susq. Division	Sept. 17, 1912	July 8
Lalor, Edward W.	Asst. Train Master	Susq. Division	June 21, 1903	Dec. 29
Lamboy, Joseph H. (P)	Laborer	Schenectady	Apr. 1, 1895	July 24
Lamphere, William B. (P)	Oil House Helper	Colonie	Nov. 1, 1917	July 1
LaPointe, Edward J.	Agent-Teleg'r.	Comstock	Dec. 1, 1898	Jan. 6
Lawton, Lee	Tool Room Att'd.	Oneonta	Dec. 18, 1922	Oct. 25
Livingston, George F.	Agent-Teleg'r.	Lanesboro	Apr. 19, 1911	Sept. 13
Londrigan, Maurice J.	Agent-Teleg'r.	Fort Ann	Apr. 1, 1900	Aug. 22
Lowman, John (P)	Engineer	Plattsburg	July 1, 1889	Jan. 3
Lupo, James	Trackman	Albany	Apr. 1, 1902	Apr. 4
Mann, William A.	Fireman	Wilkes-Barre	June 10, 1911	Apr. 24
Marra, Donato	Crossing Watchman	Glens Falls	July 17, 1922	Mar. 14
Martello, Domenico	Sectionman	West Rutland	Apr. 15, 1922	May 8
Martin, Medric G.	Fireman	Oneonta	July 24, 1917	Oct. 16
Masters, Charles F.	Foreman	Carbondale	June 20, 1890	Sept. 4
Maxwell, Joseph O.	Telegrapher	Susq. Division	Aug. 30, 1918	Aug. 15
McMahon, Michael (P)	Crossing Watchman	Glens Falls	Oct. 1, 1890	Mar. 14
McMahon, William F.	Teleg'r.-Tower'n.	Moosic	May 29, 1913	Nov. 5
Mendecino, Charles	Engineer	Carbondale	June 15, 1910	Nov. 17
Miller, Merritt (P)	Material Man	Oneonta	Sept. 17, 1906	Sept. 13
Moffatt, David	Machinist	Colonie	June 22, 1923	May 10
Moore, Edward	Trainman	Whitehall	Aug. 1, 1898	May 4
Morrissey, James	Crossing Watchman	Ballston Spa	Dec. 23, 1918	May 12
Murray, Tad	Crossing Watchman	Green Ridge	Aug. 2, 1928	Feb. 17
Newcomb, Rulifson W.	Clerk	Albany	June 2, 1917	Dec. 6
Nicholas, Martin (P)	Painter	Colonie	Aug. 1, 1887	Jan. 7
O'Boyle, Martin	Laborer	Colonie	Jan. 31, 1923	May 24
Olcotta, Frank (P)	Ass't. Foreman	Pittston	Dec. 1, 1906	Aug. 12
Palmer, John L.	Clerk	Oneonta	Aug. 16, 1915	May 22
Peck, Byron N. (P)	Trainman	Carbondale	Jan. 1, 1877	Apr. 1
Perry, Alton F.	Conductor	Oneonta	Jan. 20, 1904	Oct. 29
Pierce, Richard J.	Trainman	Saratoga	Jan. 10, 1907	Oct. 20
Pohl, Rudolph (P)	Foreman	Colonie	Jan. 11, 1894	June 8
Ray, Samuel G. (P)	Crossing Watchman	Lake George	June 16, 1911	July 26
Reardon, John (P)	Trainman	Champ. Division	July 16, 1904	Oct. 29
Reedy, Michael J. (P)	Switchtender	Kenwood	Aug. 1, 1918	Aug. 30
Rennie, George C. (P)	Machine Operator	Colonie	Apr. 1, 1879	Apr. 5
Reynar, John (P)	Crossing Watchman	Hudson	Dec. 1, 1871	Feb. 24
Roarick, William (P)	Laborer	Oneonta	Nov. 16, 1922	Jan. 19
Robb, James	Drill Press Op'r.	Colonie	Apr. 2, 1923	Sept. 30
Robinson, Daniel E.	Trainman	Susq. Division	June 1, 1890	Sept. 28
Robinson, Ernest G.	Car Repairer	Carbondale	Nov. 1, 1923	Feb. 25
Roby, Gilbert (P)	Engineer	Oneonta	June 1, 1900	Sept. 29
Rogers, Irving T. (P)	Engineer	Oneonta	Sept. 1, 1886	Dec. 19
Rose, Simeon (P)	Baggageman	Honesdale	Feb. 1, 1887	Aug. 25
Rourke, James D.	Section Foreman	Albany	Jan. 7, 1924	June 17
Sachelle, Carmino	Tool Boy	Carbondale	May 1, 1906	Oct. 8
Safford, Edward A.	Machinist	Oneonta	Nov. 27, 1923	Dec. 15

The Roll

(Concluded)

NAME	OCCUPATION	LOCATION	ENTERED SERVICE	DIED
Santarcangelo, Vincenzo	Section Foreman	Ballston Lake	May 1, 1896	Mar. 27
Sater, Thomas O. (P)	Pattern Checker	Colonie	Apr. 10, 1910	Oct. 10
Schermerhorn, Leonard H.	Car Inspr. and Repr.	Saratoga	Mar. 16, 1908	June 18
Schuster, Charles (P)	Tool Room Att'd.	Carbondale	Sept. 1, 1879	Aug. 6
Seguin, Peter A., Jr.	Car Inspr. and Repr.	Rouses Point	Nov. 20, 1922	Feb. 19
Sexsmith, Myron	Car Inspr. and Repr.	Oneonta	Oct. 24, 1922	Oct. 27
Sheehan, William F.	Checker	Glens Falls	Aug. 4, 1919	Nov. 4
Sheffer, Charles H. (P)	Chief Clerk	Glens Falls	June 1, 1885	Apr. 5
Shelly, John	Crossing Watchman	West Waterford	July 9, 1925	Oct. 6
Slifko, George	Crossing Watchman	Hudson	Sept. 27, 1927	Oct. 4
Slusser, Richard H. (P)	Foreman	Oneonta	Sept. 1, 1911	Nov. 20
Smith, Charles D. (P)	Mine Cave Watch'n.	Mayfield	Apr. 1, 1881	Nov. 7
Smith, Clarence A.	Trucker	Glens Falls	May 23, 1930	Nov. 21
Solowitch, Egnat	Car Repairer	Oneonta	June 25, 1923	July 5
Spicer, Wilmer S.	Engineer	Colonie	June 1, 1888	May 31
Stapleton, William F.	Trainman	Oneonta	Apr. 1, 1889	July 12
Steiner, John E.	Clerk	Albany	Apr. 1, 1913	June 15
Struebing, Frank C.	Fireman	Wilkes-Barre	Jan. 27, 1912	Sept. 24
Sweers, Fred	Air Brake Repr.	Colonie	Nov. 27, 1922	Apr. 4
Szczepaink, Andrew	Car Repairer	Green Island	Feb. 5, 1923	Mar. 11
Thorpe, Clyde W.	Teleg'r.-Tower'n.	Dante	Nov. 1, 1895	Feb. 21
Tierney, Thomas	Crossing Watchman	Olyphant	Dec. 4, 1924	May 6
Transue, Ervin T. (P)	Engineer	Wilkes-Barre	Sept. 1, 1897	Oct. 8
Tubbs, Harvey C.	Teleg'r.-Clerk	Cooperstown	May 1, 1893	May 17
Van Deusen, Jacob	Gen'l. Yardmaster	Green Island	Oct. 15, 1890	May 26
Vendrone, Nicholas	Section Foreman	Minooka	July 1, 1915	Jan. 13
Wands, Randell J.	Stationary Fireman	Albany	Sept. 1, 1918	July 14
Waters, Benjamin F.	Trainman	Whitehall	May 15, 1905	June 25
Williams, Thomas A.	Clerk	Fair Haven	May 1, 1919	July 10
Zillic, John (P)	Patrolman	System	Dec. 1, 1922	June 24

(P) Indicates pensioned employe.

Requiescat in pace

Modern Permanent Way

(Continued from last issue)

NOW, if the rail were continuous, as the load rolled forward, it would stretch out the rail behind and crowd it together in front, compressing the particles slightly, thus setting up behind an elastic force of tension and, in front, an elastic force of compression in the rail. Both of these forces would act to restore the disturbed portion to its former place after the load had passed, thus the rail would undulate with the ground.

With continuous rail, therefore, the tendency for rail to creep or run is eliminated by the elimination of the track joint. This is borne out in practice, as experience with continuous rail over an extended period has not, in any case, shown any tendency to run through the fastenings.

Stresses in Continuous Rail

Observations at various times and places on ordinary track with well-fitting joints have shown small movements at joints over a wide temperature range, indicating that large temperature stresses must be present in a great mileage of ordinary track.

Creepage in track not properly anchored adds tremendously to these stresses in rail in ordinary track.

It is believed, therefore, that track laid with continuous rail and fixed at, say a rail temperature of 90 degrees Fahrenheit, does not develop any more stresses in the rail than will be found in much of the ordinary track mileage and less than in portions improperly anchored.

Experiments conducted some years ago with a 500-foot rail developed that, over a range of temperature change between minus 20 degrees Fahrenheit and plus 20 degrees Fahrenheit, the length of the rail was unchangeable as between these limits and no movement was observed, but above 20 degrees Fahrenheit, the rail was quite sensitive to temperature changes. This fact has a bearing on the ideal temperature for fixing or fastening continuous rail and limits the range of temperature changes that affect the rail in any climate.

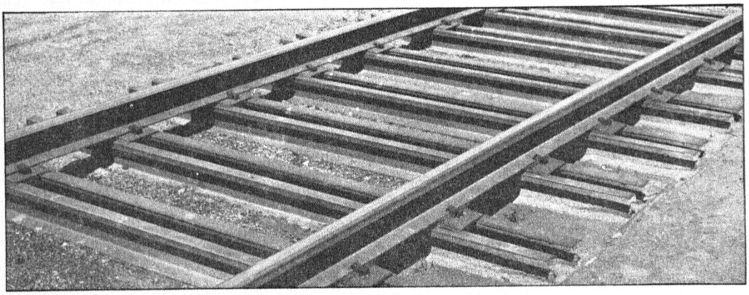
Where rail is so fixed that it cannot expand into an extended position when heated and cannot move in any other way, as, for instance, by buckling, it must remain unaltered in size since external forces holding it are greater than the compressive stress set up by the temperature rise. Alternatively, if the rail cools below the temperature at which it is fixed, a tensile stress is created to be resisted by the influence that fixes the rail; that is, the rail is compelled to undergo the stresses set up by expansion of the metal without lengthwise extension and vice versa.

Summarized, we have the following:

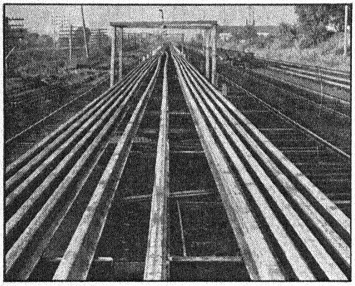
1. In long rails, the weight of the rail, in itself, reduces the theoretical amount of expansion or contraction of a rail.

2. The double-shouldered tie plate has a tendency to bind the rail and further to decrease the amount of expansion or contraction.

3. The holding power of the M. & L. clips against longitudinal movement in either direction combined with the above facts, out-balances the



Steel Ties in Yard Track



Welded Rails 975 Feet Long

forces of expansion and contraction so that there is no lengthwise movement, except a slight movement at the end rails, not much more than would be expected in 39-foot rails.

4. In continuous rail, rail creepage does not enter into the problem, as it does not exist to any appreciable extent.

5. The ranges of temperature changes that actually affect changes in the length of rail are not the total temperature of the climate in question, but only from approximately plus 20 degrees Fahrenheit to plus 130 degrees Fahrenheit or the hottest day that may be encountered.

6. In heavy rock ballast, little attention has to be given the temperature at which the rail is fixed, as it can be fixed within a range of say 65 degrees F. to 90 degrees F. without fear.

7. In cinder or gravel ballast, which is lighter and has less holding power than rock ballast, the rail should be fixed within a range of say from plus 80 degrees F. to 95 degrees F.

8. In ordinary track, there are numerous cases of sun kinks, due generally to poorly anchored track, which had been creeping, and closed the expansion gaps.

9. Sun kinks in ordinary track are always due to causes which can be easily determined and corrected.

10. There should be far less fear of sun kinks in continuous than in ordinary track, as creepage does not enter the problem and the cause of sun kinks is better controlled, can be noted, and corrected quickly.

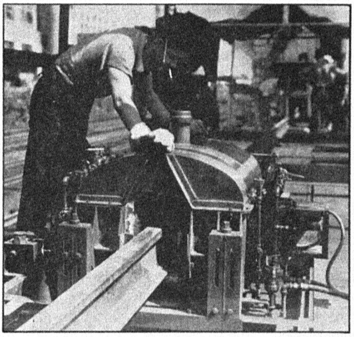
These facts were tested out in continuous rail laid in Albany in 1933, the longest rail having a length of 2,750 feet; this rail has been in service four years without giving us any trouble.

Further installations were made at Mechanicville in 1934, at Schenectady and Windsor in 1935, and at Comstock and Cohoes in 1936 and, this year, all new rail laid is being welded.

At the end of this year, we will have 450,000 lineal feet of welded rail in service, or approximately 45 track miles of continuous track.

Two methods have been used to weld the rail into continuous lengths: The thermit pressure butt weld and the electric flash weld.

The thermit pressure weld is made by casting a steel collar around the base and web of the rail ends and then forcing the rail ends together, making a pressure weld in the head of the rail. This is accomplished by using a material known as thermit. This material consists of powdered aluminum and iron oxide. At a high temperature, the aluminum unites with the oxygen in the iron oxide and there results aluminum oxide slag and free iron. In making a weld, this reaction is started with ignition powder and in about 20 seconds, the reaction is complete and the temperature has been raised to about 5,000 degrees F. At this time, the molten mass is poured into molds previously clamped around the rail ends. The steel or iron being heavier than the aluminum oxide slag flows in first and unites with the base and web of the rail ends while the aluminum oxide slag lays in the mold around the head of the rail and raises the temperature of the head to a welding temperature in three minutes, when the rail ends are forced together with clamps, making the pressure weld.



Oil-Fired Annealing Furnace

Electric flash butt welding, which has been in extensive use in industry for many years, was first applied to rails—the welding of standard lengths from the mill, end-to-end, into long lengths—by European railroads. Such practice has been followed for the past eight years, with over 200,000 welds now in European service and the number increasing rapidly.

Countries that do flash welding include: Austria, Australia, Belgium, Finland, France, Germany, The Dutch Netherlands, and Sweden. The extent and progress of flash welding rails into long lengths confirms the advantage of this practice in Europe.

As regards American steam railroads, the flash welding of rails into long lengths was pioneered by The Delaware and Hudson Railroad, the welding being done by Sperry Rail Service.

An important and exact condition had to be met, namely, a sound, high-quality weld. Extensive study and research was carried out relative to the many phases of welding theory and practice, in both Europe and the United States of America. Exhaustive tests of flash welds, made under many different procedures, with the cooperation of expert consultants, finally met the exact conditions.

Flash welds were subjected continuously, day and night, to severe rolling load fatigue tests, following a similar procedure of the extensive rail investigations by the University of Illinois and considered the nearest approach to actual service conditions in track. The many other well-known rail acceptance tests were made.

To further assure a high quality weld, extensive experiments were made relative to various methods of stress relieving. During all this research, faults were found, corrected, and then—more tests.

Finally, a standard procedure was developed which produced flash welds which stood up under the severe conditions of a 65,000-pound wheel load for over 6,000,000 cycles, without any sign of failure; equivalent of many years of heavy wheel loads in actual service.

Automatic control of temperature, pressure and time assures not only a sound, high-quality weld, but gives assurance that every weld will be the same. From preliminary trials is determined the correct temperature for the metal, the pressure at which the rail ends of molten metal should be pushed together and the time and period for the sequence of operations, namely: the pre-heating, the flashing and the push-up. The design of the equipment assures this pre-determined cycle of operations. Instruments record the current or temperature, the movement of the platen—both relative to time; therefore, with the correct record of each weld, a sound weld is assured.

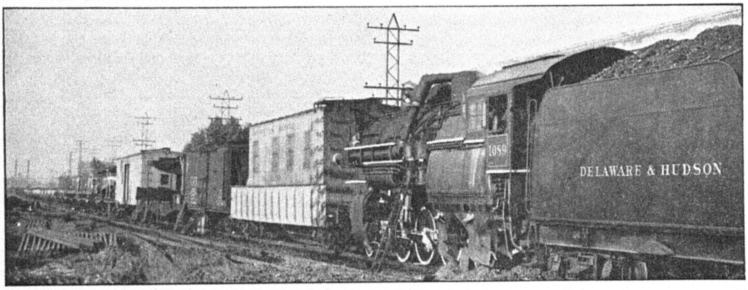
Pure molten metal—the original metal, nothing added, with rail ends cleaned at flashing, with scientifically controlled heating, reproduces rail mill conditions. Molten ends in this plastic state, pushed together with just the proper pressure and at the proper time, assure homogeneous metal and a sound weld.

Stress relieving: After the rail has been removed from the welder, it is similar to the slow cooling, or normalizing, at the steel mill and, as confirmed by lengthy fatigue and other tests, stands up to such severe conditions as to equal in strength the original metal of the rail.

Making the Flash Weld

Preheating: Rail ends are clamped in the machine, one in fixed position, one movable. Current clamps are connected to a low volt transformer. Short-circuiting between the two faces pre-heats the rail ends. (No preparation of faces, or flux, is needed.)

(Continued on page 29)



Rail Welding Train

The
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Vol. 18 **February 1, 1938** **No. 2**

The expectations of life depend upon diligence; and the mechanic that would perfect his work, must first sharpen his tools.

—CONFUCIUS.

Advice

WHAT is the idea of going into that business?" asked the old man of the youth. The latter looked up in surprise and disappointment.

"Why," he stammered, "why, I want to get into business for myself, and make a living."

"Well," said the old man, "thousands and thousands of persons have tried that business and failed. Only one rare person out of many ever makes a go of it. Don't you know that business is overcrowded?"

Humbly the lad retired, and diligently he worked out a new idea. It was daring, but it had possibilities. He told the old man about it.

"Well," was the advice, "you are foolish to try that. It's never been done before. People won't take to it. Don't you know that 999 out of every thousand new ideas fail? Don't you know that it's the hardest thing on earth to put over a new idea? Stick to the tried and true."

"I guess I'd better take a job elsewhere," murmured the youth.

"I should say not," exclaimed the older. "Don't you know that you are doomed to a life of servitude working for someone else? You'll get nowhere that way. Where is your ambition?"

"But what shall I do?" asked the youth anxiously. "You tell me I'm foolish to go into an old line of business, crazy to try something new, and a slave if I work for someone else."

The old man chuckled. "That's just it. There is really only one thing for you to do, and that is to stop listening to the advice of others. Get all the facts and then choose what you would like to do—and then do it despite everything!"—*Adapted.*

Government Services

IN general, what the government does is done well but the trouble is that government service is so expensive.

For a cent of postage the government delivers a country newspaper to a farmer on a remote road at a cost of perhaps a dollar. The government—national, state, and city—builds roads, bridges, schools, and parks with little calculation about their cost in relation to the benefits.

At the corner where a street car passes, the local government has detailed a policeman whose sole duty is to pilot about a dozen children across the street. If his wage is $5 a day that means an expense of 40 cents for each youngster.

Everybody in the town says of this public service "how nice." It is nice, but it's expensive. The job could probably be done cheaper with taxicabs or a bus, but the most economical way might be to pay the mothers of these children 30 cents each to bring them to school. Women will go to a cash-and-carry grocery store to save less than 30 cents a day, but the same women will hoist the tax burden of their communities by more than a dollar a day by demanding and getting services which they think are free.

Rural free delivery isn't "free" at all. Neither is "free" public education, or "free" parks. They all cost money that might be used for automobiles, gasoline, wallpaper, paint, food, and clothing, if so much of everybody's income was not diverted by an unseen hand into so many "free" services which, in fact, are fearful extravagances.

Givers

LOOKING about in our towns and cities, one sees so many signs reading, "No Trespassing," "Keep Off the Grass," that one expects to see them everywhere. That's why I was surprised not long ago, while driving through the little town of Mason, Michigan, to see in the yard of a private home a beautiful rock garden, and a sign that said, "Visitors Welcome."

There is a man, thought I, who knows the magic of giving. He has developed a fine garden which he might selfishly admire alone, but he is passing the beauty on to others. His garden, he has found, gives him a thousand-fold more joy when he shares it with others. Through the eyes of visitors he sees beauty in his garden which he had not suspected was there. From other flower lovers he has received bulbs and seeds to make his garden more glorious. He has had many hours of happy talks with other flower gardeners. He has had many adventures in friendship. He has been invited to visit other gardens.

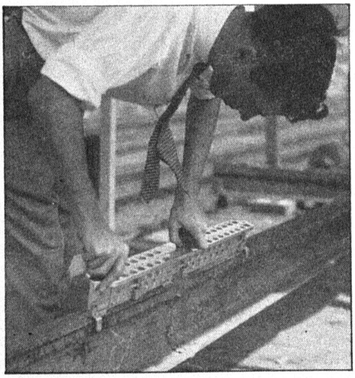
The Givers always lead the richest lives. Those who have "Keep Out" signs in their hearts are invariably dwarfed personalities. When we open the gates to our hearts and minds, and share with others the beauty, joy, and courage that come into our lives, we find our own happiness multiplied.—*Wilfred Peterson.*

Modern Permanent Way

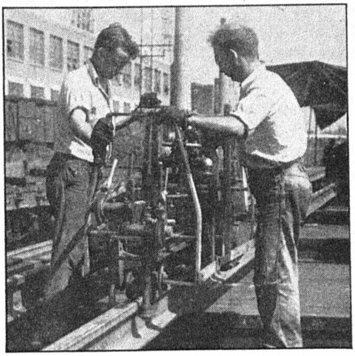
(Continued from page 27)

Flashing: Continuous short-circuiting burns off the high spots on the faces and builds up a pressure of gases between the rail ends. Air cannot gain access to the faces. There is, therefore, no oxidation of the faces, which remain chemically clean.

Push up: About two minutes after the application of current, the faces are brought together under pressure. All molten metal is squeezed out and the weld is made.



Final Inspection



Grinding Joints Smooth

Advantages of Continuous Rail

1. Joint maintenance eliminated, less surfacing at joints.
2. Rail life increased, no joint batter—labor costs reduced, less frequent rail laying.
3. Smoother riding for passengers.
4. Rolling stock maintenance reduced, no shocks at rail joints.
5. Rail creeping eliminated, hence better line and surface, permitting higher speed trains.
6. Reduced tie deterioration of joint ties.
7. Signal circuit bonds eliminated.
8. Less tractive power is required to haul trains over "jointless" rail.
9. Elimination of replacement of joint bars and reconditioning of rail ends.
10. Altogether, there should be a reduction of 50 per cent or more in the former cost of maintaining track, and an unestimated saving in the maintenance of rolling stock and motive power.

Expert Tobacconist

(Continued from page 20)

occurred. For the next 20 years MR. LAMPHIER was in charge of yard engines at Kenwood.

Lacking modern signaling and dispatching facilities, yard crews in the eighties had to be constantly on the alert, doing their work without interrupting traffic on the main line. Early one morning MR. LAMPHIER, wanting to use the main track, sent a man up to Church Street and Broadway with a red lantern to set the ball signal against and warn approaching trains. A few minutes later, while his engine was on the main, he heard a whistle blowing brakes and looked up the track to see a train bearing down on them despite the fact that the engine was in reverse motion and fire was flying from the spinning wheels. Quickly signaling his engine ahead, they got into a siding just as the train slid to a stop with the locomotive occupying the spot they had just vacated. Only then did he learn the reason for the train's inability to stop: there was a big pusher on the rear end which kept shoving long after the lead engineer had shut off and reversed his engine.

The need for eternal vigilance was brought home to him again one Sunday morning when he was in charge of an extra crew switching in the vicinity of the present site of "KN" Tower. He had sent a man down the Susquehanna Division main with a flag, telling him to go well beyond the old semaphore on Albany Hill. Again he heard the frantic whistling for brakes and pulled in off the main just in time to clear the track for a fast freight which, not expecting a yard crew to be at work on Sunday, had come down the hill too fast to stop short of the entrance to the yard.

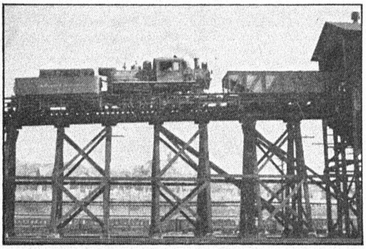
In 1906 MR. LAMPHIER took the position of baggageman on Trains 308 and 309, with Conductor "Paddy" Ackert and Trainman "Bill" Keegan. Six months later he became baggageman on the "Cobleskill Job," running from Altamont to Albany in the morning, Albany to Cobleskill in the afternoon, returning ahead of 309, and back to Altamont in front of the sleeper at night. When that run was discontinued, MR. LAMPHIER worked for a time on other Altamont locals, then returned to Kenwood as yard conductor. For ten years prior to his retirement MR. LAMPHIER was a regular baggageman on Trains 308, 309, and 305.

MR. LAMPHIER made his last run on No. 309 September 14, 1935, and on the day his pension became effective, October 1, he left Albany on a 12,000-mile rail and water trip which took him to various West Coast cities, including San Diego and its Exposition, Tia Juana and Jaurez, Mexico, New Orleans, Birmingham, Atlanta, Washington, and Harrisburg. Last June he again set out on a trip through the Canadian Rockies to Alaska, he rode the railroad through Yukon Pass of Gold Rush fame, then back to Vancouver, Seattle, Yellowstone Park, Cody, Arizona, Billings, Montana, Lincoln, Nebraska, Chicago and home. In all he has traveled over 25,000 miles since retiring, visiting each of the United States except Maine.

He travels on no set schedule: when he arrives in a city he stays long enough to visit all the principal points of interest, then continues to the next city. MR. LAMPHIER has thus not only seen many of the natural and man-made wonders of North America but has also become acquainted with people in all walks of life from countries all over the world. What are his future plans? In the first place, he wants to visit Maine, then perhaps revisit Florida.

MR. LAMPHIER, whose home is at 248 South Manning Boulevard, Albany, has one son, Arthur B., a lawyer. He is a member of The Delaware and Hudson Veterans' Association and the Holy Name Society.

Coaling Trestle



Showing Method of Supplying Coal to the Carbondale Trestle

Finish the Story

A home salesman was waxing eloquent about the merits of a certain vacuum cleaner, but a Southside woman wasn't impressed. She suggested that he talk less and show her what the machine could do.

The live-wire salesman snapped into action. He took off his coat, fitted up the cleaner, thrust his arm into the chimney of the open fireplace and brought out a big handful of soot, which he scattered over the parlor carpet. He then shoveled some ashes over the rug, adding a big handful of soil from the garden. Then he smiled and rubbed his hands.

"Now," he exclaimed with enthusiasm, "I'll show you what this vacuum cleaner can do. You'll be surprised, madam! Where's the electric switch?"

"Switch?" echoed the surprised woman. "We use gas!"

Index Ready

AN *Index* listing all articles, illustrations and poems appearing in *The Bulletin* during 1937 has been prepared and copies will be sent free on request. Address: *The Bulletin*, The Delaware and Hudson Railroad Corp., Room 405-C D. & H. Building, Albany, N. Y.

Clicks from the Rails

Short Wave Radio

sending and receiving sets have been installed in cabooses and receivers on locomotives of freight trains running between Trondheim and Storlien, on the Norwegian State Railways, to enable conductors to give instructions to engineers while long trains are being switched. Messages received in the cab are acknowledged with blasts on the whistle. Before radio sets were introduced it was necessary for the conductor to walk from the caboose to the engine every time a car had to be switched in the foggy and stormy weather which prevails in this area.

◆

Rail Accounting Efficiency

was put to an acid test when Dr. C. Shipp, of Brookhaven, Miss., wrote the Southern Pacific that he had never received $4.50 in wages due him since 1907. Within three weeks the item had been traced to the payrolls of 30 years ago and a check for $4.65—Dr. Schipp was 15 cents off in his figuring—was mailed to him.

◆

A Fossilized Skeleton,

uncovered by London, Midland and Scottish employes while erecting a turntable at Tain, was identified as that of an animal of the pig family which lived during the period following the Ice Age. While pile driving operations destroyed many of the bones, including most of the skull, enough remained intact to add another bit to man's knowledge of prehistoric life in Great Britain.

◆

You Must Smoke

while riding in the smoking compartment of Roumanian Railways trains or run the risk of paying a fine. A law provides that it is an offense, punishable by fine, to travel in the smoker unless indulging in a pipe, cigar, or cigarette.

"The Peg Leg Line,"

with trains that ran on a single rail nailed to post tops was probably America's only monorail system. Built in 1877-78 from Bradford in the oil fields of McKean County, Pennsylvania, up the Foster Brook Valley to Gilmore, four miles away, it cost $30,000. The track was a single rail spiked to heavy timbers strung atop a line of sturdy posts, the cars and locomotives running on wheels set in line, with overhanging sides to balance the train. A traveler compared it to a gigantic pair of boots swung over a clothes line. It could round corners and climb steep grades at a speed of about 30 miles per hour. Disaster ended the experiment when, on the morning of January 27, 1879, one of the boilers exploded, killing five men and wrecking the train.

◆

The World's Fastest Freight

is Illinois Central MS-1, covering the 527 miles between Chicago and Memphis, Tenn., in less than 13 hours, at an average speed of 41 miles per hour. To avoid delay and increase safety, cars are rigidly inspected and journal boxes repacked if necessary before starting, and locomotives are changed twice en route. With trains of from 25 to 48 cars, MS-1 averages over 50 miles an hour for long distances, at times attaining 70 miles an hour. Special facilities are also provided in Memphis to insure prompt, early morning delivery of the freight arriving in the world's fastest freight.

◆

Voting Booths On Trains

were an unusual feature of a recent election to the supreme council of the U. S. S. R. According to a news dispatch, Russian travelers on long distance trains were given "voting rights certificates" and booths were installed in which votes could be cast.

A 2¾-Mile Viaduct,

including eleven 162-foot spans and five 36-foot arches, built at a cost of $1,250,000 in 1904, was recently demolished by the Great Western Railway (England). The steelwork was of the deck type, each span consisting of two 90-ton main girders 17 feet deep, resting on brick piers varying in height up to 90 feet. After as much of the steelwork as possible had been burned off with acetylene torches, the main girders were tilted outward with jacks until they overbalanced and fell to the ground.

◆

Milk Was the Fuel

used on an experimental run of the *Dixie Limited* from Chicago to Florida. The test was arranged after Dr. Bundesen, President of the Chicago Board of Health, had announced that milk contained enough energy to run a railroad engine. Rail officials, at first skeptical, were inclined to agree that Dr. Bundesen was probably right when he produced bricks of compressed dried milk which, to quote them, "Burned like blazes."

◆

"Death Takes a Holiday"

when a passenger boards an American railroad train. Based on the records for the past seven years, a passenger could have ridden more than 2½ billion miles, or continuously for nearly 5,000 years, without meeting death in a train accident. For safety's sake, ride the trains!

◆

Handling Electric Eels

can be a "shocking" business according to Railway Express employes who moved five of them, varying in length from 30 to 36 inches, from New York to Philadelphia. These creatures can generate direct current up to 300 volts, making it necessary to handle the container by strings to avoid shocks.

Lincoln

ABRAHAM Lincoln was at home and welcome with the humblest and possessed a spirit and a practical vein in the time of terror that commanded the admiration of the wisest. His heart was as great as the world, but there was no room in it to hold the memory of a wrong.—RALPH WALDO EMERSON.